

Hart 3H

MD (usft)	CL (usft)	Inc (°)	Azi (°)	TVD (usft)	NS (usft)	EW (usft)	Northing (usft)	Easting (usft)	V.Sec (usft)	Dogleg (°/100usft)
0		0	0	0	0	0	516953	1644567	0	0
100	100	0.18	303.58	100	0.09	-0.13	516953.1	1644567	-0.16	0.18
125	25	0.28	337.45	125	0.17	-0.19	516953.2	1644567	-0.25	0.66
150	25	0.26	344.36	150	0.28	-0.23	516953.3	1644567	-0.34	0.15
175	25	0.28	6.4	175	0.39	-0.23	516953.4	1644567	-0.42	0.42
200	25	0.24	12.01	200	0.5	-0.22	516953.5	1644567	-0.47	0.19
225	25	0.3	20.59	225	0.62	-0.18	516953.6	1644567	-0.51	0.29
250	25	0.25	28.62	250	0.72	-0.13	516953.8	1644567	-0.53	0.25
275	25	0.27	47.79	275	0.81	-0.06	516953.8	1644567	-0.52	0.36
300	25	0.27	55.21	300	0.89	0.03	516953.9	1644567	-0.49	0.14
325	25	0.27	30.13	325	0.97	0.11	516954	1644567	-0.47	0.47
350	25	0.26	10.69	350	1.08	0.15	516954.1	1644567	-0.5	0.36
375	25	0.19	16.6	375	1.17	0.17	516954.2	1644567	-0.54	0.29
400	25	0.18	10.09	400	1.25	0.19	516954.3	1644567	-0.57	0.09
425	25	0.22	38.63	425	1.33	0.22	516954.3	1644567	-0.58	0.42
450	25	0.19	58.73	450	1.39	0.29	516954.4	1644567	-0.57	0.31
475	25	0.17	60.34	475	1.43	0.36	516954.4	1644567	-0.53	0.08
500	25	0.19	38.98	500	1.48	0.42	516954.5	1644567	-0.51	0.28
525	25	0.15	61.97	525	1.52	0.47	516954.5	1644567	-0.5	0.31
550	25	0.18	74.79	550	1.55	0.54	516954.6	1644568	-0.46	0.19
575	25	0.09	103.3	575	1.56	0.59	516954.6	1644568	-0.41	0.44
600	25	0.06	164.27	600	1.54	0.62	516954.6	1644568	-0.39	0.32
625	25	0.04	130.5	625	1.52	0.63	516954.5	1644568	-0.37	0.14
650	25	0.18	34.78	650	1.55	0.66	516954.6	1644568	-0.36	0.75
675	25	0.38	27.26	675	1.65	0.72	516954.7	1644568	-0.37	0.81
700	25	0.33	18.11	700	1.79	0.78	516954.8	1644568	-0.4	0.3
725	25	0.17	351.63	724.99	1.9	0.79	516954.9	1644568	-0.45	0.77
750	25	0.09	307.35	749.99	1.95	0.77	516955	1644568	-0.5	0.49
775	25	0.14	245.05	774.99	1.95	0.73	516955	1644568	-0.53	0.51
800	25	0.14	240.81	799.99	1.92	0.68	516954.9	1644568	-0.56	0.04
824	24	0.09	292.86	823.99	1.91	0.63	516954.9	1644568	-0.59	0.46
986	162	0.21	335.74	985.99	2.23	0.39	516955.3	1644567	-0.97	0.1
1064	78	1.02	13.55	1063.99	3.04	0.5	516956.1	1644568	-1.35	1.11

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1159	95	2.62	23.6	1158.94	5.85	1.56	516958.9	1644569	-2.11	1.71
1207	48	2.82	27.8	1206.88	7.9	2.55	516960.9	1644570	-2.48	0.59
1253	46	3.9	32.48	1252.8	10.22	3.92	516963.2	1644571	-2.71	2.42
1301	48	4.65	37.05	1300.67	13.15	5.97	516966.1	1644573	-2.73	1.71
1348	47	5.35	38.76	1347.49	16.38	8.49	516969.3	1644576	-2.55	1.52
1396	48	5.66	37.56	1395.27	20	11.33	516972.9	1644579	-2.32	0.69
1443	47	5.61	41.27	1442.04	23.56	14.26	516976.4	1644582	-1.99	0.78
1491	48	5.41	37.43	1489.82	27.12	17.19	516979.9	1644585	-1.67	0.87
1538	47	4.17	34.14	1536.66	30.3	19.49	516983.1	1644587	-1.62	2.7
1586	48	3.15	25.94	1584.56	32.93	21.05	516985.7	1644588	-1.87	2.38
1632	46	2.86	17.34	1630.5	35.16	21.94	516987.9	1644589	-2.43	1.16
1727	95	1.4	354.24	1725.43	38.58	22.53	516991.3	1644590	-3.93	1.75
1822	95	0.71	280.6	1820.42	39.84	21.84	516992.6	1644589	-5.23	1.45
1915	93	1.67	265.03	1913.39	39.83	19.92	516992.6	1644587	-6.78	1.08
2010	95	1.42	251.96	2008.36	39.35	17.42	516992.1	1644585	-8.54	0.45
2104	94	0.66	214.2	2102.35	38.54	16.01	516991.4	1644584	-9.23	1.05
2154	50	0.45	213.31	2152.34	38.13	15.74	516991	1644583	-9.21	0.42
2268	114	0.34	164.17	2266.34	37.44	15.59	516990.3	1644583	-8.93	0.3
2363	95	0.28	244.04	2361.34	37.06	15.46	516989.9	1644583	-8.83	0.42
2457	94	0.44	182.1	2455.34	36.6	15.24	516989.4	1644583	-8.74	0.42
2552	95	0.25	351.52	2550.34	36.44	15.19	516989.3	1644583	-8.68	0.72
2646	94	0.31	230.47	2644.34	36.48	14.97	516989.3	1644582	-8.89	0.52
2741	95	0.63	283.36	2739.33	36.44	14.26	516989.3	1644582	-9.44	0.53
2835	94	0.35	268.17	2833.33	36.55	13.47	516989.4	1644581	-10.15	0.33
2929	94	0.78	286.38	2927.33	36.72	12.57	516989.6	1644580	-10.98	0.49
3024	95	0.7	287.24	3022.32	37.08	11.39	516990	1644579	-12.15	0.09
3119	95	0.43	333.8	3117.31	37.57	10.68	516990.5	1644578	-13.01	0.54
3213	94	0.63	296.5	3211.31	38.11	10.06	516991	1644578	-13.83	0.41
3308	95	0.44	88.83	3306.31	38.36	9.96	516991.2	1644577	-14.06	1.09
3402	94	0.41	63.31	3400.31	38.51	10.62	516991.4	1644578	-13.61	0.2
3496	94	0.36	14.6	3494.3	38.95	11	516991.8	1644579	-13.55	0.34
3590	94	0.17	324.77	3588.3	39.35	10.99	516992.2	1644579	-13.79	0.3
3685	95	0.59	313.57	3683.3	39.8	10.56	516992.7	1644578	-14.41	0.45
3780	95	0.35	269.18	3778.3	40.14	9.91	516993	1644577	-15.13	0.44
3874	94	0.21	295.98	3872.3	40.21	9.47	516993.1	1644577	-15.53	0.2
3968	94	0.44	291.75	3966.29	40.42	8.98	516993.3	1644577	-16.05	0.25
4063	95	0.62	301.26	4061.29	40.82	8.2	516993.7	1644576	-16.92	0.21

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4158	95	0.71	287.88	4156.28	41.27	7.2	516994.2	1644575	-17.99	0.19
4252	94	0.78	298.86	4250.28	41.75	6.09	516994.7	1644574	-19.18	0.17
4346	94	0.62	292.47	4344.27	42.26	5.06	516995.2	1644573	-20.31	0.19
4426	80	0.73	294	4424.26	42.63	4.19	516995.6	1644572	-21.23	0.14
4532	106	0.24	273.32	4530.26	42.92	3.35	516995.9	1644571	-22.08	0.48
4627	95	8.15	34.36	4624.94	48.5	6.96	517001.4	1644575	-22.37	8.71
4721	94	13.43	30.89	4717.25	63.38	16.33	517016.2	1644584	-23.33	5.66
4816	95	17.4	43.18	4808.84	83.21	31.73	517035.8	1644600	-22.24	5.39
4911	95	22.63	44.3	4898.07	106.67	54.23	517059	1644623	-17.45	5.52
5005	94	32.68	48.28	4981.23	136.58	85.88	517088.5	1644655	-8.93	10.87
5100	95	42.15	49.81	5056.6	174.3	129.48	517125.7	1644699	4.82	10.02
5195	95	48.58	47.79	5123.32	218.85	180.27	517169.5	1644750	20.49	6.93
5289	94	52.31	42.34	5183.19	270.07	231.46	517220.1	1644802	32.64	5.98
5384	95	52.32	41.8	5241.27	325.87	281.84	517275.3	1644853	41.46	0.45
5478	94	52.3	46.91	5298.76	379.03	333.81	517327.7	1644906	53.11	4.3
5573	95	52.3	47.53	5356.86	430.08	388.98	517378.1	1644961	68.59	0.52
5667	94	52.24	49.51	5414.39	479.32	444.67	517426.6	1645018	85.55	1.67
5762	95	52.17	49.05	5472.6	528.29	501.57	517474.8	1645075	103.64	0.39
5855	93	52.35	50.99	5529.53	575.54	557.92	517521.3	1645132	122.29	1.66
5950	95	52.33	48.37	5587.58	624.2	615.25	517569.3	1645190	140.92	2.18
6044	94	52.23	44.38	5645.1	675.48	669.06	517619.8	1645245	155.16	3.36
6139	95	52.27	47.47	5703.27	727.72	723.01	517671.4	1645299	168.96	2.57
6233	94	52.36	50.89	5760.75	776.33	779.29	517719.3	1645356	186.76	2.88
6328	95	52.46	52.27	5818.7	823.11	838.27	517765.3	1645416	207.82	1.16
6422	94	52.41	51.73	5876.01	868.98	896.98	517810.4	1645475	229.19	0.46
6517	95	52.45	49.95	5933.94	916.53	955.36	517857.2	1645534	249.32	1.49
6611	94	52.34	51.79	5991.3	963.52	1013.13	517903.4	1645592	269.26	1.56
6706	95	52.39	56.24	6049.33	1007.71	1073.98	517946.8	1645654	293.35	3.71
6800	94	52.53	56.86	6106.6	1048.79	1136.17	517987.1	1645717	320.32	0.54
6895	95	53.56	63.73	6163.76	1086.34	1202.05	518023.8	1645783	352.35	5.88
6989	94	55.05	68.72	6218.63	1117.07	1271.89	518053.7	1645853	391.55	4.59
7083	94	57.6	73.26	6270.76	1142.5	1345.82	518078.1	1645927	437.17	4.85
7178	95	61.71	81.64	6318.81	1160.16	1425.75	518094.8	1646008	492.16	8.75
7272	94	64.3	90.92	6361.55	1165.51	1509.2	518099	1646091	557.14	9.21
7367	95	64.98	97.71	6402.28	1159.04	1594.73	518091.5	1646177	630.66	6.5
7462	95	64.76	104.94	6442.67	1142.17	1678.99	518073.5	1646261	709.15	6.89
7556	94	69.12	113.49	6479.53	1113.65	1760.51	518044	1646342	792.15	9.56

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7651	95	70.81	123.71	6512.16	1070.96	1838.72	518000.3	1646419	880.64	10.26
7745	94	72.15	131.82	6542.06	1016.41	1909.09	517944.8	1646489	969.6	8.3
7840	95	79.63	135.22	6565.21	952.99	1975.81	517880.5	1646555	1060.71	8.6
7935	95	85.78	136.63	6577.26	885.32	2041.32	517812	1646620	1153.29	6.64
8029	94	89.45	137.67	6581.18	816.48	2105.18	517742.4	1646683	1245.2	4.06
8124	95	89.14	133.85	6582.34	748.43	2171.44	517673.5	1646748	1338.61	4.03
8219	95	89.51	133.36	6583.46	682.92	2240.23	517607.1	1646816	1432.61	0.65
8313	94	88.98	132.04	6584.7	619.18	2309.3	517542.5	1646884	1525.82	1.51
8408	95	89.11	136.33	6586.29	552.99	2377.4	517475.4	1646951	1619.66	4.52
8503	95	89.11	136.71	6587.76	484.06	2442.76	517405.6	1647016	1712.84	0.4
8597	94	88.77	132.36	6589.5	418.17	2509.74	517338.9	1647082	1805.59	4.64
8692	95	88.95	139.65	6591.39	349.88	2575.67	517269.8	1647147	1898.87	7.67
8786	94	89.26	146.92	6592.86	274.59	2631.82	517193.8	1647202	1988.22	7.74
8881	95	89.32	144.48	6594.04	196.12	2685.35	517114.6	1647255	2077.27	2.57
8975	94	89.17	140.67	6595.28	121.49	2742.46	517039.3	1647311	2167.02	4.06
9069	94	89.23	139.29	6596.59	49.51	2802.9	516966.5	1647370	2257.96	1.47
9163	94	89.2	138.84	6597.88	-21.49	2864.48	516894.7	1647431	2349.26	0.48
9258	95	89.2	139.69	6599.21	-93.47	2926.47	516821.9	1647492	2441.46	0.89
9353	95	89.2	137.97	6600.53	-164.97	2989	516749.6	1647554	2533.82	1.81
9447	94	89.2	137.49	6601.85	-234.52	3052.22	516679.3	1647616	2625.62	0.51
9542	95	89.11	136.37	6603.25	-303.91	3117.08	516609.1	1647680	2718.67	1.18
9636	94	89.17	137.21	6604.66	-372.42	3181.43	516539.7	1647743	2810.79	0.9
9731	95	89.11	138.35	6606.09	-442.76	3245.26	516468.6	1647806	2903.54	1.2
9825	94	89.23	141.11	6607.45	-514.47	3306.01	516396.1	1647866	2994.57	2.94
9920	95	89.23	141.06	6608.72	-588.38	3365.68	516321.4	1647925	3086	0.05
10015	95	89.26	140.9	6609.98	-662.18	3425.49	516246.9	1647984	3177.47	0.17
10109	94	89.2	142.78	6611.24	-736.08	3483.56	516172.2	1648041	3267.58	2
10204	95	89.17	145.03	6612.59	-812.84	3539.52	516094.8	1648096	3357.62	2.37
10299	95	89.23	147.14	6613.92	-891.66	3592.52	516015.3	1648148	3446.44	2.22
10393	94	89.23	148.28	6615.18	-971.12	3642.73	515935.2	1648197	3533.36	1.21
10488	95	89.17	146.62	6616.51	-1051.18	3693.83	515854.4	1648247	3621.35	1.75
10582	94	89.14	144.64	6617.89	-1128.76	3746.89	515776.2	1648299	3709.5	2.11
10677	95	89.26	141.39	6619.22	-1204.63	3804.03	515699.6	1648355	3800	3.42
10772	95	89.38	138.21	6620.35	-1277.17	3865.34	515626.3	1648416	3891.97	3.35
10866	94	89.14	133.42	6621.56	-1344.55	3930.83	515558.1	1648480	3984.36	5.1
10960	94	89.11	130.67	6623	-1407.49	4000.62	515494.2	1648549	4077.7	2.93
11055	95	88.98	131.09	6624.58	-1469.66	4072.44	515431.1	1648620	4172.24	0.46

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11150	95	89.17	134.63	6626.12	-1534.26	4142.05	515365.6	1648689	4266.39	3.73
11245	95	89.14	135.69	6627.52	-1601.62	4209.03	515297.4	1648755	4359.99	1.12
11339	94	88.77	137.09	6629.23	-1669.66	4273.86	515228.6	1648819	4452.23	1.54
11433	94	88.95	138.15	6631.1	-1739.09	4337.2	515158.3	1648881	4544.05	1.14
11528	95	88.99	138.2	6632.81	-1809.87	4400.54	515086.7	1648944	4636.66	0.07
11622	94	88.89	138.08	6634.55	-1879.86	4463.26	515015.9	1649006	4728.31	0.17
11717	95	88.86	138.86	6636.41	-1950.97	4526.23	514944	1649068	4820.81	0.82
11812	95	88.92	140.01	6638.25	-2023.12	4588	514871.1	1649129	4912.92	1.21
11906	94	88.92	139.86	6640.03	-2095.05	4648.49	514798.4	1649188	5003.87	0.16
12001	95	88.89	140.41	6641.84	-2167.95	4709.38	514724.7	1649248	5095.7	0.58
12096	95	88.92	141.23	6643.66	-2241.58	4769.38	514650.3	1649307	5187.24	0.86
12190	94	88.98	139.65	6645.38	-2314.03	4829.24	514577.1	1649366	5277.97	1.68
12285	95	88.86	139.97	6647.17	-2386.59	4890.53	514503.8	1649426	5369.94	0.36
12379	94	88.98	138.78	6648.94	-2457.92	4951.72	514431.7	1649487	5461.11	1.27
12474	95	88.92	137.65	6650.68	-2528.75	5015.01	514360	1649549	5553.7	1.19
12568	94	88.92	136.75	6652.45	-2597.7	5078.87	514290.2	1649612	5645.68	0.96
12663	95	88.86	136.13	6654.29	-2666.53	5144.32	514220.6	1649677	5738.88	0.66
12757	94	88.95	135.55	6656.09	-2733.96	5209.8	514152.3	1649741	5831.29	0.62
12851	94	88.83	134.88	6657.91	-2800.66	5276	514084.8	1649807	5923.87	0.72
12946	95	88.92	133.96	6659.78	-2867.14	5343.84	514017.4	1649874	6017.66	0.97
13040	94	88.89	135	6661.57	-2932.99	5410.89	513950.7	1649940	6110.45	1.11
13135	95	88.86	134.69	6663.44	-2999.97	5478.24	513882.9	1650006	6204.13	0.33
13229	94	88.95	136.09	6665.23	-3066.87	5544.24	513815.1	1650071	6296.66	1.49
13324	95	89.14	137.71	6666.82	-3136.23	5609.14	513745	1650135	6389.72	1.72
13419	95	89.11	142.78	6668.27	-3209.23	5669.86	513671.2	1650195	6481.48	5.34
13513	94	88.89	145.45	6669.91	-3285.37	5724.95	513594.3	1650249	6570.45	2.85
13608	95	88.95	146.22	6671.7	-3363.96	5778.29	513515.1	1650302	6659.42	0.81
13703	95	89.08	144.91	6673.33	-3442.3	5832	513436	1650354	6748.54	1.39
13797	94	88.95	144.32	6674.95	-3518.92	5886.43	513358.7	1650408	6837.26	0.64
13893	96	88.89	144.09	6676.76	-3596.78	5942.56	513280.2	1650463	6928.08	0.25
13987	94	89.75	143.58	6677.88	-3672.66	5998.03	513203.6	1650517	7017.21	1.06
14081	94	89.6	140.59	6678.41	-3746.81	6055.79	513128.7	1650574	7107.21	3.18
14176	95	89.54	141.8	6679.12	-3820.84	6115.32	513053.9	1650633	7198.59	1.28
14271	95	89.45	139.36	6679.96	-3894.22	6175.63	512979.7	1650692	7290.24	2.57
14366	95	89.48	137.04	6680.85	-3965.03	6238.95	512908.1	1650754	7382.84	2.44
14460	94	89.38	136.89	6681.78	-4033.73	6303.09	512838.6	1650818	7474.91	0.19
14555	95	89.42	132.03	6682.78	-4100.25	6370.88	512771.2	1650885	7568.67	5.12

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MD (usft)	CL (usft)	Inc (°)	Azi (°)	TVD (usft)	NS (usft)	EW (usft)	Northing (usft)	Easting (usft)	V.Sec (usft)	Dogleg (°/100usft)
14650	95	89.54	136.21	6683.64	-4166.37	6439.06	512704.2	1650952	7662.53	4.4
14742	92	89.2	136.22	6684.65	-4232.78	6502.71	512637	1651015	7752.87	0.37
14837	95	89.11	133.5	6686.05	-4299.78	6570.04	512569.1	1651081	7846.54	2.86
14931	94	89.23	133.59	6687.41	-4364.53	6638.16	512503.5	1651149	7939.57	0.16
15026	95	89.32	136.96	6688.62	-4432.01	6705	512435.2	1651214	8033.12	3.55
15121	95	89.75	141.21	6689.39	-4503.78	6767.2	512362.6	1651276	8125.38	4.5
15215	94	88.89	144	6690.5	-4578.45	6824.28	512287.2	1651332	8215.12	3.11
15310	95	88.8	141.05	6692.42	-4653.82	6882.06	512211.1	1651389	8305.85	3.11
15405	95	88.89	138.41	6694.33	-4726.28	6943.45	512137.9	1651449	8397.84	2.78
15499	94	88.89	138.44	6696.16	-4796.59	7005.82	512066.8	1651511	8489.38	0.03
15594	95	88.83	139.8	6698.05	-4868.4	7067.98	511994.2	1651572	8581.62	1.43
15689	95	89.02	141.48	6699.83	-4941.84	7128.22	511920	1651631	8673.23	1.78
15784	95	88.98	143.41	6701.49	-5017.14	7186.11	511843.9	1651688	8764.01	2.03
15878	94	88.77	140.65	6703.33	-5091.22	7243.92	511769.1	1651745	8854.02	2.94
15973	95	88.83	138.21	6705.32	-5163.36	7305.69	511696.2	1651806	8946.13	2.57
16031	58	88.83	138.21	6706.51	-5206.6	7344.34	511652.4	1651844	9002.66	0

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